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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,472	02/17/2004	Anand G. Dabak	TI-29547.1	3117

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EXAMINER	
BOCURE, TESFALDET	
ART UNIT	PAPER NUMBER
2611	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/781,472	DABAK ET AL.	
	Examiner	Art Unit	
	Tesfaldet Bocure	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/14/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The Information Disclosure Statement (IDS) received on February 17, 2004 has been considering by the Examiner and the initialed copies (two pages) of the IDS are attached with this correspondence.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 33-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's Own Admitted Prior Art , AOAPA hereinafter (tables 1 and 2) and reference made to 3GPP RAN 25.214, 1999 in pages 19-21 in the specification of the current application.

AOAPA, tables 1 and 2 and corresponding specification in pages 19-21, teaches a User Station (UE) for measuring the beam forming coefficients to be transmitted to the Base Unit in (BU) on uplink channel, wherein the Base Unit comprising: receiving the weighting coefficients transmitted by the base station, wherein the transmitted weighting coefficient are determined from the previously transmitted pilot signal to be used in future adjustment of the phase and power of the antennas (claimed previously transmitted weighting information in claim 37); the received weighting coefficients are

averages; multiplying by the respective antenna; and transmitted by the respective antenna as in claim 33.

It should be noted that applicant's specification with respect to the AOAPA in table 2 was made in reference to figure 1 of the instant application. The only difference is that the current invention uses a phase shift of 45^0 as shown in table 3 of the instant application while as the once in the AOAPA table 2 uses a phase shift of 90^0. Therefore, the multiplication and transmission of the information with the weighting coefficient is done by figure 1. Reference should also be made to figure 10 in the 3GPPP, where Applicant was making a reference as prior art, for the base station having a receiver for receiving weighting coefficients feedback from the user station multiplied by the information signal and transmitted by the respective antenna as that of figure 1 in the instant application.

The claimed language in claim 33 does not call for any specific phase information in the received weighting coefficients, therefore reads in any phase information received by the base station which includes the once disclosed with respect to AOAPA table 2 in the instant application and that in the 3GPPP.

Applicant's own admitted prior art was made in reference to the specification to 3GPPP and reference should be made to page 20-23 in the specification and figure 10, where the base station having an encoder, interleaver, mapper and modulator claimed in claim 34.

Further to claim 35 the Base Station multiplies the feedback coefficients W_1 and W_2 by a respective multiplier as shown in figure 10 in the 3GPPP.

The weighted coefficients multiplied by the respective a multiplier is transmitted by their respective antenna (see for example ANT1 and ANT2 in fig. 10 of 3GPPP and $A12_1$ and $A12_2$ in figure 1 of the instant application) as in claim 36.

Further to claim 38, the Base Unit (fig. 10 in the 3GPPP) shows that the pilot signals are transmitted over PCCPCH and DPCH.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 33-38 are provisionally rejected on the ground of nonstatutory double patenting over claims 33-38 of copending Application No. 10/919,470. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that

copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: the claimed subject matter in the instant application differs from that of the parent application in that it has been claimed broadly that; "averaging at least one of the coefficients over a plurality of slots" has been claimed in the instant application; while averaging at least one coefficient over a plurality of slots, wherein the at least one coefficient *is phase rotated* ***by 90 degrees*** *in each successive slot*" in the parent application serial number 10/919,470 as shown in the comparison of the claims in the table below. However the plurality of coefficients having no specific phase value as claimed in the instant application is Applicant's Own Admitted Prior Art (AOAPA, table 1 and 2 and disclosed in pages 19-23).

Therefore, it would have been obvious to one of ordinary skill in the art to use the weighting coefficient of any value other than the once claimed in the co-pending application for adjusting the phase and/or amplitude to the antenna of the base station at the time the invention was made.

It should also be noted that claims 37-38 of the instant application differ from that of claims 37-38 in their dependency.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Instant US Patent Application 10/781,472	Related US Patent Application No. 10/919,470
Claim 33. A method of transmitting information comprising the steps of: receiving an information signal; receiving a plurality of coefficients from a remote communication system; averaging at least one of the coefficients over a plurality of slots; producing a plurality of weighted information signals from respective coefficients and the information signal; and transmitting the plurality of weighted information signals from respective antennas.	Claim 33. (New) A method of transmitting information, comprising the steps of: receiving an information signal; receiving at least one coefficient from a remote communication system; averaging at least one coefficient over a plurality of slots, wherein the at least one coefficient *is phase rotated* ***by 90 degrees*** *in each successive slot*; producing a plurality of weighted information signals from the at least one coefficient and the information signal; and transmitting the plurality of weighted information signals from respective antennas.
Claim 34. A method as in claim 33, comprising the steps of." encoding the information signal; interleaving the information signal; symbol mapping the	Claim 34. A method as in claim 33, comprising the steps of." encoding the information signal; interleaving the information signal; symbol mapping the

information signal; and modulating the information signal.	information signal; and modulating the information signal.
Claim 35. A method as in claim 33, wherein the step of producing a plurality of weighted information signals comprises the steps of: multiplying the information signal by a first coefficient, thereby producing a first weighted information signal; and multiplying the information signal by a second coefficient, thereby producing a second weighted information signal.	Claim 35. A method as in claim 33, wherein the step of producing a plurality of weighted information signals comprises the steps of: multiplying the information signal by a first coefficient, thereby producing a first weighted information signal; and multiplying the information signal by a second coefficient, thereby producing a second weighted information signal.
Claim 36. A method as in claim 35 comprising the steps of: transmitting the first weighted information signal from a first antenna; and transmitting the second weighted information signal from a second antenna.	Claim 36. A method as in claim 35 comprising the steps of: transmitting the first weighted information signal from a first antenna; and transmitting the second weighted information signal from a second antenna.
Claim 37. A method as in **claim 35**, wherein the respective coefficients correspond respectively to previously transmitted weighted information signals.	Claim 37. A method as in **claim 33**, wherein the respective coefficients correspond respectively to previously transmitted weighted information signals.

Claim 38. A method as in **claim 35** comprising the steps of." transmitting a first set of pilot symbols over a primary common control physical channel (PCCPCH); and transmitting a second set of pilot symbols and the weighted information signals over a dedicated physical channel (DPCH).	Claim 38. A method as in **claim 33** comprising the steps of." transmitting a first set of pilot symbols over a primary common control physical channel (PCCPCH); and transmitting a second set of pilot symbols and the weighted information signals over a dedicated physical channel (DPCH).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent numbers 5,848,103, 5,920,286, 6,067,324, 6,192,256; 6,373,433 and 6,611,675 issued to Weerackody, Mohebbi, Harrison, Whinnett, Espax et al., and Salonen et al disclose a channel characteristics measurement by the subscriber station response to the pilot signal transmitted by the base station and loopback from the subscriber to the base unit to adjust the antenna.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (571) 272-3015. The examiner can normally be reached on Mon-Thur (7:30a-5:00p) & Mon.-Fri (7:30a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti (Jay) Patel can be reached on (571) 272-2988. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tesfaldet Bocure
Primary Examiner
Art Unit 2611

T.Bocure